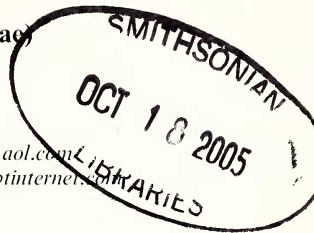


Hypseloecus visci (Puton) (Hemiptera: Miridae)
a mistletoe bug new to Britain

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ABSTRACT

The first occurrence in Britain of the plant bug *Hypseloecus visci* (Miridae: Phylinae: Pilophorini) is reported, from two sites in Somerset in July 2003. The problems of identification using existing keys to British species are discussed. The species is described in detail and modifications to the keys in Southwood and Leston (1959) are presented which enable the species to be determined. The European range of this species is described and short notes on the biology are given.

INTRODUCTION

While surveying gardens and orchards in Somerset for the National Trust, one of us (DG) had the opportunity to sample mistletoe which was low enough to reach. As expected the mirid *Pinalitus viscicola* (Puton) was present at some sites but from two orchards an unfamiliar small black mirid was taken. Three specimens were found, a male and female at Tintinhull House (ST5019) on 22 July 2003 and one female at Barrington Court (ST3918) on 30 July. When DG tried to identify them using both Southwood & Leston (1959) and Nau (draft keys, unpublished manuscript) it proved impossible to reach a convincing determination, not even the subfamily could be determined. He then took the specimens to Dinton Pastures, to check against the British Entomological and Natural History Society collections and library, and took the opportunity to ask Roger Hawkins if he recognised the species. After consulting Stichel (1956) and Wagner and Weber (1964), the latter identified them as *Hypseloecus visci* (Puton) (Miridae: Phylinae: Pilophorini), a species and genus hitherto unrecorded in the British Isles. Subsequently, Bernard Nau confirmed this diagnosis by reference to Stichel (1956) and Wagner (1973).

IDENTIFICATION

The initial difficulty in identifying these specimens was in large part due to *H. visci* belonging to the tribe Pilophorini yet having a quite different appearance to the four existing British members of this tribe, all in genus *Pilophorus*. Our *Pilophorus* are very distinctive bugs which somewhat resemble wood ants. They have several silver bands across brown hemelytra, the side margins of the latter expand markedly behind the middle, and their average length is 4.0–5.0 mm. *Hypseloecus visci* (Fig. 1) has neither the silver bands nor the expanded hemelytra and is considerably smaller, the male length is given by Wagner (1973) as 3.2–3.5 mm and female 3.0–3.6 mm. By contrast, *H. visci* superficially resembles the mirids *Psallus perrisi* (Mulsant & Rey) and *Atractomus magnicornis* (Fallén) due to its blackish appearance, ovate form and small size, the length of the Somerset specimens being about 3.3 mm.

Closer inspection reveals that *H. visci* shares a very characteristic feature of *Pilophorus* spp., this is the form of the 'back' of the head. Viewed from the side this is strongly concave, arching over the pronotal collar and forming a sharp keel along the hind margin of the vertex. Also the head is short and wide, with protruding eyes

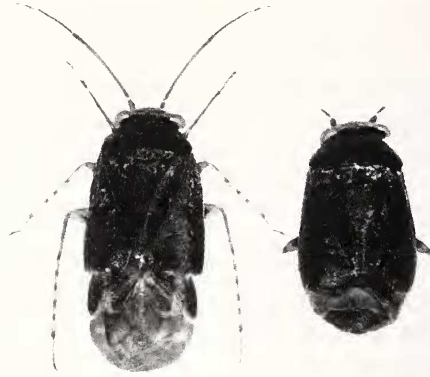


Fig.1. Male (left) and female (right – appendages omitted) of *Hypseloecus visci*, × 10.

flattened posteriorly. In *H. visci*, males and females differ in form. Males are more elongate and the membrane is coplanar with the corium and cuneus. The female is more strongly ovate, the pronotum more transverse, and the membrane is angled sharply downwards. In both sexes the hemelytra have an incision directed inwards from the lateral margin at the base of the cuneus, appearing more developed in the male. Other details are as follows:

The upperside is uniformly brownish-black or black except the apex of the corium, which is narrowly whitish, and the base of the cuneus which has a rusty tinge; the apex of the scutellum may also be rufous. The membrane is dusky with whitish veins. The head has the apices of clypeus and paraclypeus white, and also the vertex along the inner border of the eye. The pubescence of the upper side takes two forms: adpressed gold scales which are quite densely distributed, and adpressed hairs which appear pale or dark, depending on the lighting. The antennae are brownish-yellow with segments A3 and A4, and the apex of A2 dusky; the base of A2 and A3 is narrowly white. The thickness of A2, at the middle, is less than or equal to that of A1. The legs are whitish-ochre, the femora with a dusky reddish wash; the tibiae have dark erect spines, longer or equal to the tibial thickness and set in large dark spots that have a tendency to form narrow bands. The tarsi have segment T3 about as long as T1 + T2, and T3 is dark. The tarsal claws are slender and become progressively convex apically. The form of the aedeagus (Fig. 2) is very similar to that of *Pilophorus* spp. but differs in basal and apical details; also its long slender form somewhat resembles that of *Atractotomus* spp., but in these there is no terminal 'spatula'.

This species does not fit comfortably in the keys in Southwood and Leston (1959) as the tribe Pilophorini has since been moved from sub-family Orthotylinae to sub-family Phylinae (Aukema & Rieger, 1999). Also, on entering the key within Orthotylinae it leads to tribe Halticini and then to genus *Strongylocoris*. The simplest solution is to add a couplet to the beginning of the key to sub-families (page 202) as follows:

0. Head strongly concave posteriorly in side view. [*Pilophorus* spp. have distinctive forewings: clearly expanded posteriorly, brown in colour with several conspicuous transverse bands of silver hairs.] Pilophorini (p. 242)
Not as above. 1

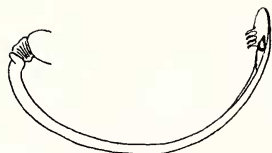


Figure 2. Aedeagus of *Hypseloecus visci* (based on Wagner, 1973).

Also, in the Orthotylinae key (page 242) the first couplet should be deleted and, on the lower half of the page, in the section headed 'Pilophorini' the following couplet should be inserted before the key to genus *Pilophorus*:

1. Forewings expanded posteriorly, brown in colour and bearing several transverse bands of silver hairs. $L > 3.75$ mm *Pilophorus*
- Forewings not expanded posteriorly, blackish, no silver bands. $L < 3.75$ mm *Hypseloecus visci*

BIOLOGY

Within continental Europe, the range of *H. visci* extends from The Netherlands and Germany, south to France and Italy, and east to Poland, the Ukraine and Turkey; two other species in the genus only occur further east (Aukema & Rieger, 1999). Ehanno (1987) maps the distribution in France, showing this species scattered throughout the country but with more records in the north, particularly Brittany. In The Netherlands there are only a handful of records from the extreme south-east, in Limburg (Aukema, 1998).

The three specimens found in Somerset in late July were shaken from mistletoe growing on apple trees in orchards, and mistletoe is the host in continental Europe too; Wagner (1973) states that the adults are found in July and August, and the eggs overwinter. It appears to be phytophagous (Wachmann *et al.*, 2004).

In 1889 J.W. Douglas (*Ent. Mon. Mag.*, 25: 256) reports that Dr A. Puton had, the previous year, described two species of Heteroptera 'taken on mistletoe in the environs of Paris'. He goes on to say that "These should be of special interest to British collectors, for it is not at all improbable that both may be found in England." The species were: *Orthops viscicola*, found in Hereford later the same year, and the present species, *H. visci*. He was correct but premature!

Subsequently, there have been records in 2004 as follows: Jonty Denton found *H. visci* on mistletoe in Bushy Park, Middlesex, in great numbers on 27 June; and Richard Dickson took several at mercury vapour light in his garden at Fareham, Hampshire on 2 August and 8 August.

ACKNOWLEDGEMENTS

David Gibbs is very grateful to Roger Hawkins for identifying the specimens. Also to Matthew Oates of the National Trust, who commissioned the work, and Floyd Summerhayes and Tanis Roberts of Tintinhull House and Christine Brain of Barrington Court for their hospitality during his visits. We also thank Jonty Denton for details of the Middlesex record.

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 SHORT COMMUNICATION

***Lasius brunneus* (Latreille) (Hymenoptera: Formicidae) in Monmouthshire.** – Workers of the Nationally Scarce brown tree ant *Lasius brunneus* were found on an ancient oak tree within the former deer park of Llantilio Crossenny (SO412141), 12.vi.2005, during a visit by members of the Ancient Tree Forum (ATF). The species has only recently been detected in this part of Wales but this is a very under-recorded area and the ant may well have been present for some time. The earlier records have not been formally published. Peter Hammond noted its presence in Wyelands Park, Chepstow (ST522918), 13.viii.1994, during specialist survey of old parklands for the Countryside Council for Wales; A.P. Fowles subsequently found it to be widespread there, 7.vi.1999. P. Skidmore found it deeper into Wales in Clytha Park, west of Raglan (SO3608) during 2002, and A.O. Chater identified it from Dingestow Court Park (SO452097), 10.iv.2004. These sites appear consistent with the ant's known distribution through the lower Severn catchment (Alexander & Taylor, 1997) and all lie between the Rivers Wye and Usk. It is unclear whether the species is a long-overlooked resident or has undergone a recent range expansion westwards.

Thanks to David Parsons for suggesting the Ancient Tree Forum visit this gigantic tree, to Adrian Fowles for permission to refer to the unpublished CCW records, and to Glenda Orledge for details of the Dingestow record. – KEITH N. A. ALEXANDER, 59 Sweetbrier Lane, Heavitree, Exeter EX1 3AQ

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